

REMARKS

Claims 1-32 are pending in the present application. Reconsideration of the application is respectfully requested in view of the following responsive remarks. Specifically, in the office action of March 10, 2006, the following actions were taken:

- (1) All previous issued rejections were withdrawn; and
- (2) Claims 1-32 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,557,989 (hereinafter "Hirosawa") in view of WO200037258 (hereinafter "Lavery").

It is respectfully submitted that the presently pending claims be reconsidered and allowed. Support for the amendments can be found in paragraphs [0021] and [0023] to name a few, which, in addition to other discussions of "redispesing" precipitates, discusses resolublizing or redissolving precipitates. Other amendments are provided merely to remedy certain antecedent basis and formality issues discovered while reviewing the claims for the present response.

Rejections Under 35 U.S.C. § 103

Before discussing the obviousness rejections herein, it is thought proper to briefly state what is required to sustain such a rejection. The issue under § 103 is whether the PTO has stated a case of *prima facie* obviousness. According to the MPEP § 2142, the Examiner has the burden and must establish a case of *prima facie* obviousness by showing the prior art reference, or references combined, teach or suggest all the claim limitations in the instant application. Further, the Examiner has to establish some motivation or suggestion to combine and/or modify the references, where the motivation must arise from the references themselves, or the knowledge generally available to one of ordinary skill in the art. The Applicant respectfully asserts the Examiner has not satisfied the requirement for establishing a case of *prima facie* obviousness in any of the rejections.

The Examiner has rejected claims 1-32 were rejected under 35 U.S.C. 103(a) as being unpatentable over Hirosawa in view of Lavery. A brief discussion of each of Hirosawa and Lavery is thought relevant.

Hirosawa is directed primarily to a print head and ink jet printing apparatus. This case is primarily a mechanical invention that addresses issues related to ink refill

as it relates to pressure issues. Very little attention is given in this application to the chemical components of the ink and/or fixer compositions. In fact, Hirosawa does not discuss at all the problems associated with cross-contamination of reactive inks or inks/fixers and nozzle clogging that results therefrom. Further, Hirosawa does not make mention at all of chemical solutions to these types of problems.

On the other hand, Lavery is more of a traditional ink case that is related to specific ink chemistries. Lavery describes an ink-jet printing process that includes applying an image on a substrate by overprinting, underprinting, or simultaneously printing a binder and a polymeric biguanide of a specific chemical formula. Lavery does not teach or suggest how to solve the problems associated with cross-contamination and reducing clogging of nozzles on a common orifice plate. Migration of inks/fixers, aerosolized inks/fixers, etc., on common orifice plates is a significant problem in the ink-jet arts which is unaddressed in Lavery.

Conversely, the present invention is drawn specifically to solving the problems associated with printing reactive inks (or reactive inks and fixers) from a common orifice plate, while at the same time, ameliorating issues related to nozzle clogging caused by fluid cross-contamination on a common orifice plate. Neither Hirosawa nor Lavery addresses this problem. Specifically, by selecting components and formulating inks/fixers that form good precipitates when printed on a media substrate (due to vehicle components being drawn away by the media or being dried after printing, etc.), but which also can be resolubilized when contacted with one of the reactive ink(s) or a fixer composition, the problems resulting from cross-contamination are greatly minimized. As clear from the Examples, not all combinations of reactants that form acceptable precipitates on a media substrate are included in the claimed invention. Claim 1 makes it clear that “the solid precipitate is redispersible or redissolvable in at least one of the fixer or the first reactive ink, or the second reactive ink.” More specifically, in looking at the Examples provided by the Applicant, in Example 1, it is noted that Fixer 1 works well with the disclosed ink vehicle containing Acid Blue 9 dye. However, as noted in Example 2, the same ink vehicle with Direct Blue 199 when combined with Fixer 1 did not redissolve. In other words, whether or not a solid precipitate is “redispersible or redissolvable” is determined on a case by case basis.

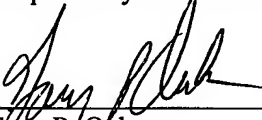
There is no teaching or suggestion in either reference alone, or in combination, that careful selection of components and matching of reactants and inks/fixers in formulation of ink sets can result in reducing clogging because of the ability of the ink and/or fixer to redissolve or redisperse a formed precipitate upon contact with additional ink/fixer along with some mechanical agitation or temperature change that occurs when firing an ink-jet printhead. As neither reference teaches or suggests this claim element, this rejection is respectfully asserted to be inapplicable to the presently pending claims. Reconsideration is respectfully requested.

In view of the foregoing, Applicants believe that claims 1-32 present allowable subject matter and allowance is respectfully requested. If any impediment to the allowance of these claims remains after consideration of the above remarks, and such impediment could be removed during a telephone interview, the Examiner is invited to telephone W. Bradley Haymond (Registration No. 35,186) at (541) 715-0159 so that such issues may be resolved as expeditiously as possible.

Please charge any additional fees except for Issue Fee or credit any overpayment to Deposit Account No. 08-2025.

Dated this 10th day of July, 2006.

Respectfully submitted,



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